Name Date Score \_\_\_\_\_\_\_\_\_\_\_\_

12

# Grade 7 Unit 3 Quiz 2: Geometry

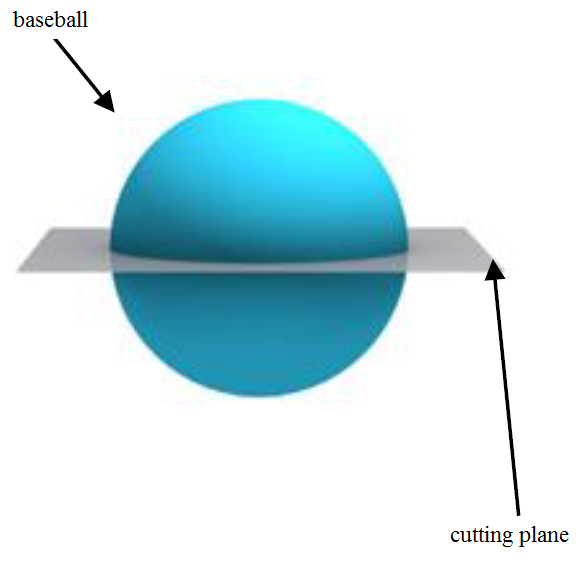
***A calculator may be used on this assessment***

**7.G.3 (2 points)**

1. Draw two different three dimensional shapes that have a rectangular cross-section when sliced parallel to the base. Give the names of the three dimensional shapes you drew.

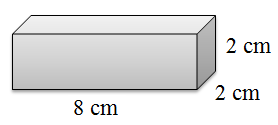
**7.G.3 (1 point)**

2. The ball below was sliced by the cutting plane to create a cross-section. What shape is the cross-section?



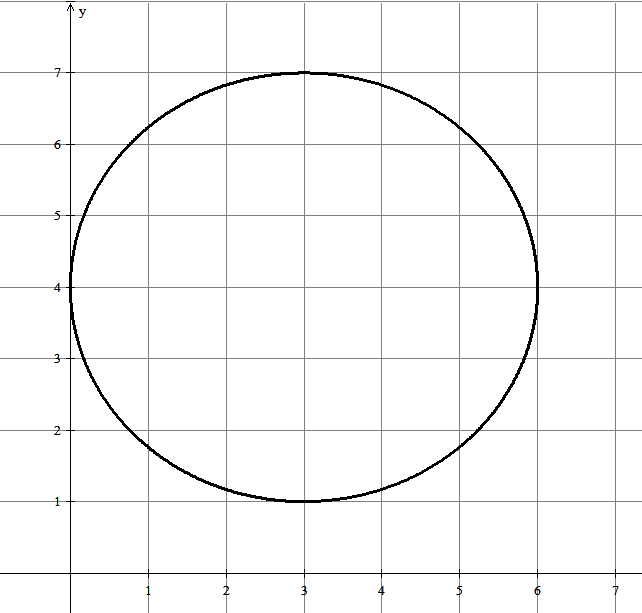
**7.G.3 (2 points)**

3. As she looked at the rectangular prism below, Bailey said that the cross-section will be exactly the same if the prism is sliced parallel to the base or perpendicular to the base. Is she correct? Justify your response.



**7.G.4 (2 points)**

4. What is the area of the circle graphed below?

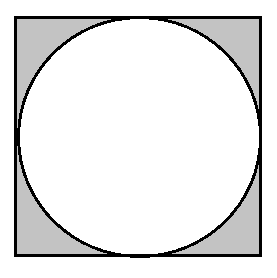
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**7.G.4 (2 points)**

5. Brooke measured the circular button on her coat. Then she calculated that it has a circumference of 31.4 millimeters. What is the button's diameter, to the nearest tenth of a millimeter? Show your work.

**7.G.4 (3 points)**

6. The bottom of a soda can is made from the square piece of aluminum as shown in the diagram below.



If the radius of the soda can is 2 inches, what is the area of the shaded portion? Show all work

**7th Grade Unit 3 Quiz 2 – Answer Key**

NOTE: Only one strategy is given to solve each problem, other methods may also be acceptable as long as they are mathematically correct.

1. possible answers include a rectangular prism, square pyramid 2 points

2. circle 1 point

3. Bailey is not correct. The parallel produces a non-square rectangle; the perpendicular produces a 2 by 2 square 2 points

4. 9π or 28.27 2 points

5. 10.0 mm 2 points

6. 16-4π or 3.43 inches 3 points